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ABSTRACT

A study examined media coverage of hantavirus in three Southwestern regional newspapers, including interviews with journalists and sources involved in the coverage, and implications of the media's portrayal of Navajo culture. Content review of regional coverage--67 articles in three regional newspapers were reviewed in the first year of a new hantavirus outbreak--indicates references to Navajo culture were often negative (35%). The majority of sources used in the examined articles were government representatives (45%), although 34% of the attributed sources in the studied coverage were Navajo spokespersons. While 40% of the stories were reported by local staff including journalists who are Native Americans, some 60% of the coverage came from wire services. Comparison to coverage provided in a Navajo newspaper revealed a similar pattern of negative influences (32%), but far more neutral references. Sourcing in the Navajo reporting also relied on fewer government sources (26%) and more attribution to scientists (28%). Findings suggest that reporting about environmental and health risks involving diverse cultures requires more than what traditional journalism training provides. (Contains 5 figures of data and 32 references.) (Author/PA)

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Reporting Hantavirus:
A Study of Intercultural Environmental Journalism

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Reporting Hantavirus:
A Study of Intercultural Environmental Journalism

Abstract

This paper reports analysis of media coverage of hantavirus in three regional newspapers, interviews with journalists and sources involved in the coverage, and discussion of the implications of media's portrayal of Navajo culture. Content review of regional coverage appearing during the first year of a new hantavirus outbreak indicates references to Navajo were often negative (35%). The majority of sources used in the examined articles were government representatives (45%), although slightly more than one third (34%) of the attributed sources in the studied coverage were Navajo spokespersons. While 40% of the stories were reported by local staff including journalists who are Native American, some 60% of the coverage came from wire services. Comparison to coverage provided in a Navajo newspaper revealed a similar pattern of negative references (32%), but far more neutral references. Sourcing in the Navajo reporting also relied on fewer government sources (26%) and more attribution to scientists (28%). The author suggests that reporting about environmental and health risks involving diverse cultures requires more than what traditional journalism training provides.

"Reporting Hantavirus:
A Study of Intercultural Environmental Journalism"

In recognition of the 50th anniversary of the National Congress of American Indians, the U. S. Commerce Department released a report late last year based on 1990 census data from over 300 tribes in the United States. According to the study, the American Indian population increased over 30 percent during the last decade. Nearly 450,000 families are identified in the current population of 1.9 million; in four of the ten largest tribes, more than 10 percent have college degrees; and the Navajo have the highest proportion (48.8%) of people living in poverty ("Survey," 1994). To help media accurately report on Indian issues and write articles involving tribal lifestyles, the Bureau of Indian Affairs encourages reporters to call for correct terminology or phrasing, and handbooks have been developed. (See for example The American Indian and the Media published by The National Council on Christian and Jews.) Others have advocated the

value of cultural journalism, an effort to encourage diversity among those who actually report and write the news (Creed, 1994).

In their article "Beyond the Culture Wars: An Agenda for Research on Communication and Culture", Davis and Jasinski warn against assumptions about the social world and advise us that "[L]ong-suppressed ethnic cultures are gaining strength" (1993, p. 141). Most American journalists and communications researchers have been trained in educational and institutional environments founded on the preeminence of modern civilization. However, over the past decade the challenges to modernism and concerns raised by negligence in the dominant social order have become more evident; one more often finds references to the work of Habermas (1979, 1989), for example, in the social research and communication literature. Signs of a developing consciousness, a sensitivity to diverse voices, have emerged slowly in mainstream media and mainstream communication research. An underlying premise in this paper, however, suggests that journalistic standards and norms are fairly potent contaminates for any culture. Journalism considered as a learned "new" culture is capable of taking precedence, overwhelming existing mores.

Deference to cultural rationalities, perhaps unscientific in the technical view, opens environmental journalism and the health risk dialogue to a wider range of voices, inclusive of those who see themselves as victims. Such efforts by media to be more inclusive are more recently evident and indicate a recognition of the complexity and richness of the media audience. Questions arise, however, when reporters, not as advocates, but in the effort to follow the fuller story must understand diverse voices without framing news in a manner damaging to a culture. The study reported here examines whether there are barriers in addition to the personal history of

any individual journalist inherent in the journalistic process.

A cultural approach to environmental communication assumes the view that the "lay" experiential evidence and reasoning that constitute cultural rationality are as legitimate as the "expert" scientific evidence and technical rationality that normally dominate the risk debate (Krimsky & Plough, 1988). The problem when faced with the addition of cultural differences becomes one of knowledge in addition to possible prejudice. The focus of this paper is the production and negotiation of meaning for mass media audiences in the reporting and health communications surrounding the emergence of a new strain of hantavirus. The discovery of this disease in a new environment is a newsworthy health risk event. This study examines media portrayal of Navajo culture in reporting the hantavirus outbreak in 1993, the role of the journalistic process and cultural ignorance in the hantavirus coverage, and intent (meaning) sources for the hantavirus information and the media professionals themselves brought to the story.

Accepted mass communication theory suggests that regional media coverage of the hantavirus outbreak is more likely to be balanced; proximity detours reliance on limited sources or over-reliance on sources representative of only a partial point of view. Reporting in regional newspapers should also more often be the work of staff journalists than copy provided over national wire services. In the absence of cultural journalism, it is assumed reporters rely on journalistic standards; cultural insights or privilege do not intrude on expected norms.

Communicating Environmental and Health Risk In Mass Media

The role of the mass media in public knowledge, perceptions and attitudes, especially

when information is new, has been widely studied. Media have been charged with activating apprehensions and myths. Mediated environmental news is the focus of much recent study. Consistent with general media role findings, in a study of British television coverage of environmental issues, Cottle (1993) found unopen and unequal access to the range of voices. He found news forums restricted to "outside" voices, but saw encouragement in "live" programming where more opportunities for discursive engagement occurred. Studio-based interviews, for example, offered the possibility of developing other, non-traditional points of view. He called for increased sensitivity to cultural expressions of environmental portrayals of news.

Waiting for journalists who promise by nature or birth to be more sensitive to non-dominant cultures to report environmental and health risk stories proves frustrating, and may, as this researcher suspects, fail to alter the product. The latest figures on diversity among America's news professionals show improvement at a snail's pace (Lieberman, 1994). In a USA TODAY report on a survey from the American Society of Newspaper Editors (ASNE), minorities overall account for 10.5% of the total population of close to 54,000 newsroom professionals. At only .3%, Native Americans are the least represented.

Those who watchdog the watchdogs are concerned about what journalists bring to their reporting. Dunwoody and Griffin (1993) studied how reporters cover Superfund sites in differing communities and found predictable factors influencing journalistic strategies. In addition to re-affirming that journalists are event driven, for example, they report that journalists "simply adopt the frames of references of the bureaucracies that they cover; a dimension of an issue will be deemed newsworthy because officials have defined that piece of the process as important" (p. 46). But they also find that sources of all kinds are able to drive story themes, and that

occupational or organizational norms and resources can influence story frames. Indeed, however, prevailing power structures tend to build environmental coverage frames. Those media frames then influence both societal risk judgements and personal risk judgement (Coleman, 1993).

As one might expect, the amount of media coverage given to environmental or health risks is related to people's estimates of principal causes of death (Kasperson et al., 1988). Media are "highly selective, often sensationalized, and sometimes inaccurate" when reporting environmental and health risks and recommended actions (Wilkins & Patterson, 1987, p. 19). Rarity is a more compelling story than commonality; ratings and newspaper sales are assumed to be driven by dramatic events, not in-depth analysis of important emerging issues. Not surprisingly, public understanding and involvement in environmental issues has been hindered by the quality of information provided (McCallum, Hammond, & Covello, 1991).

Media attention appears unrelated to the number of deaths or injuries, but closely related to newness, rarity or perceived drama (Singer & Endreny, 1987). Singer and Endreny (1987) also found that media offer no or inadequate information about the likelihood of the occurrence of a risk, often leaving inaccurate public perception and unnecessary or misguided anxiety. Slovic (1986), who has researched public perception of risks extensively, finds memorability and the ability to imagine a risk culpable in distorted public risk perceptions. Anything that causes a risk to be more memorable increases the perceived likelihood of occurrence (Ryan, Dunwoody & Tankard, 1991).

Of additional note is the text-audience relationship, framed not only by the media writer but also by the reader, listener or viewer. Frameworks of interpretation involve personal experience or predisposition, political and environmental concern filters, assessment of

evidentiary contributions (how an argument or narrative, image or statistic is added to knowledge), and judgement of balance or fairness (Corner & Richardson, 1993). Meaning and interpretation of news are contingent on influences beyond the mediated message.

The Hantavirus Story

Although hantaviruses are distributed worldwide (Stone, 1993), when the emergence of a new strain of hantavirus in the United States hit the mass media agenda in 1993, charges of media stereotyping and environmental racism came in tandem. The initial story telling was accused of being laden with negative images of a Native American culture and generalities that leapt from scientific uncertainty to labels associating the disease in error with a particular minority group of people and their culture. From the onset, Navajo spokespersons attempted to respond to what they saw as a crisis in the public sphere and correct misperceptions, as well as, defend themselves in the face of ethnocentricism from both the media and health communities. Within weeks of the discovery of yet another strain of hantavirus, a National Public radio (NPR) report (June 9, 1993) broadcast interviews with Navajo spokespersons, who already resented the insensitivity of journalists covering the story and linking the disease to the tribe. A reversal of the more respectful trend in the treatment and understanding of Native American cultures seemed likely as hantavirus reports recreated a fearful image of an entire region of the country and a culture. The Navajo people were left to confront a host of hostile publics.

Unfortunately, this story may never end. As naturalist Terry Tempest Williams (1987, 1994) might explain in her efforts to help audiences become more sensitive to Navajo culture,

coyote is everywhere. A recently released study by state, federal and Indian groups indicates rodents throughout the state of Montana carry the hantavirus disease ("Hantavirus," 1995).

Within one year of reporting of the outbreak in the Four Corners region in the western states, 40 people had died in 17 states. The disease was tagged as "an Indian ailment" because the new viral strain was discovered on a Navajo reservation covering parts of Utah, Arizona, Colorado and New Mexico. USA TODAY may have been first to use the tag "the Navajo flu," although a representative from the National Center for Infectious Diseases (CID), an M.D. who authored the original formal notices announcing the news viral strain, claims a headline in the Albuquerque Tribune first used the label "Navajo Flu." Albuquerque Tribune science reporter Lawrence Spohn equated that to calling AIDS "the gay disease" (Richard, 1993). The Arizona Republic used the label "the Navajo epidemic," and NBC News made reference to "the Navajo disease."

Dwayne Beyal, public information director for the Navajo Nation, told one Inquiry writer that while the spread of the disease may end, "the false image of Navajo life as impoverished and unsanitary may persist in the minds of many Americans" (Richard, 1993, pp. 2-3).

The Centers for Disease Control (CDC) based in Atlanta, Georgia became a key government source for the story, although CDC makes an effort to refer media to state and local health departments. CDC press officer Bob Howard labels the problem a "data dump," referring to the estimated 25,000 media calls he receives each year. In hindsight, CDC spokespersons describe rather than cultural sensitivity in the case of the hantavirus outbreak, an example of "dueling amateurs": a CDC investigator trained in epidemiology and a non-specialist reporter.

Analysis of Media Coverage

Although the original time frame for analysis was set for April 1993 (the "crisis" story actually broke in the major national media in late May 1993) through May 1994, headlines and wire stories continued for months to herald the Navajo/hantavirus story, first as the tribal government objected to the originally recommended name for the "deadly" virus discovered in the Four Corners area, and later as more victims were identified.

The first name proposed for the strain of hantavirus, Muerto Canyon virus (MCV), in use in the scientific literature (Science, 1994), was derived from Canyon del Muerte (canyon of death), a site on the Navajo reservation. Traditionally, new viruses are named after where they are discovered, but to avoid offending local people, CDC called this new strain Pulmonary Syndrome Hantavirus (Marshall, 1993; Hughes et al, 1993). "The hantavirus was all over the United States," Navajo Nation Council member Genevieve Jackson told an Associated Press reporter. "We resent the fact that it is named after a canyon here...CDC should have a little more respect and consideration for the Navajo people" (Associated Press, Navajo, 1994). The name finally accepted for the new strain, "Sin Nombre," introduces an interesting sidestep (meaning "without a name") from the cultural versus scientific tradition conflict.

Continuing stories reported new cases of the disease with some fatalities, and analyzed long term economic woes created as fearful tourists canceled plans to visit the Four Corners area (Becenti, 1994), and in a related turn of events, CDC announced a "war" on diseases, comparing "virulent cholera ravaging India" to "hantavirus killing Americans" (Associated Press, CDC, 1994).

Findings

In an initial analysis of 67 news stories in three regional newspapers (The Phoenix Gazette, The Arizona Republic and The Salt Lake Tribune), and a small sampling of coverage from television news (ABC and CNN) and other media, during the period from late May 1993 through April 1994, support is found for early criticism of media's performance as this story broke. Articles selected using NEXIS, CARS and home delivery service were coded as either local (staff) written or from wire services. In the three regional newspapers analyzed, 60% of stories originated from wire services, while 40% were reported by local staff. (See Fig. 1.) The number of mentions of "Navajo" were counted and each was evaluated in context as negative, neutral or positive. Coders judged each mention of "Navajo" in reference to modifying or other specific words also appearing in the same sentence or paragraph, and general tone based on context.

The number of sources used in each story was then recorded and each quote or attribution categorized as Navajo, Government, Business/Industry, Citizen/Member of General Public, or Other (with notation of expertise or affiliation if evident). A random recode resulted in a reliability of 82%.

As Fig. 2 shows, of the total number of references (n=302) to Navajo, 35% were judged to be negative. Some 39% of references to Navajo were neutral; 26% were positive. However, it appears that specific mention of Navajos or contextual references derogatory to the Navajo or Native American culture declined as the story unfolded. Reports of the virus and specific mention of the Four Corners region as a Navajo reservation appear to give way to increased attention to science and medical information, although general geographic mention of the

southwest or Four Corners area continues. (Further work is needed on possible continuing associations regardless of specific mentions.)

Some 1 to 11 sources were used in each of the stories examined (n = 251). Of these, 34% were clearly identifiable as Navajo or Indian/Native American. (See Fig. 3.) Government sources, usually CDC or state Health Department officials, accounted for 45%, while business or industry represented 6% of those quoted. The "Other" category provided 13% of sourcing; these were generally university scientists or medical professionals in the private sector. Only some 2% of sources used to tell the story were voices from the general public, usually tourists.

Examples of quotes from Navajo Tribal Council spokespersons and from government sources demonstrate the unraveling conflict:

> Zah [President of the Navajo Nation], at a press conference here said, "Navajos are finding themselves shunned in public places and business establishments...Navajos have been made to feel like plague bearers or lepers whose touch is to be feared." (Arizona Republic, June 18, 1993, p. A1)

> "I believe it behooves you as an educational institution to learn the known facts about this illness before resorting to actions that discriminate against our students." [Marshall] Plummer [Vice President of the Navajo Nation responding to the University of Colorado and New Mexico State's announcements that Indian students would need a medical screening] said. "Be assured that this illness is not Navajo specific. The illness has struck non-Indians and people who live far away from Navajo lands. This is not a racial illness, but a regional one." (Phoenix Gazette, June 15, 1993, p. B1)

> "People who have been personally affected by this, by friends and relatives, in some cases because of the publicity and the presence of the media are reluctant to talk to our investigators," said Dr. C. Mack Sewell, New Mexico's chief epidemiologist. (Phoenix Gazette, June 3, 1993, p. A2).

For this study, only three sample transcripts from television news (ABC News and CNN)

were examined. Again, analysis for negative, neutral or positive association between the disease and the culture, and frequency of sources representing diverse cultures, suggests a similar pattern as exemplified in the following excerpts:

> "An army of health care workers has descended on the U.S. Southwest - its mission, to identify a mysterious illness that has killed 13 people, mostly Navajo Indians. The professionals have all the tools of modern medical investigation, but tribal traditions and taboos are complicating their probe." [Natalie Allen, CNN anchor, lead-in to report from correspondent Robert Vito, June 3, 1993.]

> "Navajo children from Arizona were headed home today after being told they could not visit with their pen pals at a Los Angeles school. The principal of the California school and her students were worried they might catch the disease from the Navajo children." [ABC News reporter Gary Shepard, June 2, 1993.]

Electronic media's references or associational tagging however followed print's lead and became less negative in later coverage.

Coverage in The Navajo Times

To explore the possible effects of cultural journalism on this same coverage, articles about hantavirus appearing in the Navajo Tribal Council newspaper, The Navajo Times, during the peak months of the breaking story (June and July) were also coded. Two coders independently analyzed the 20 identified stories noting placement and coding the number and categories of sources and evaluating references to "Navajo" as positive, negative or neutral. Intercoder reliability was measured at 87%.

Almost all coverage during the studied period appeared as front page stories, and either carried staff bylines or ran with writer/reporter unidentified. Although the majority of references

to "Navajo" were found to be "neutral" (60%), even in this tribe sponsored periodical, nearly one-third (32%) of all references to the Indian name were coded as "negative." And, as Figure 4 shows, of the total 100 direct references to the term, only 8% were judged to be "positive."

In the analyzed articles, with attribution to a range from 1 to 13 sources, the most often cited source was not a government spokesperson or report. But as Figure 5 shows, 26% of the 94 identified sources were categorized as "government," while Navajo sources, the anticipated primary source for this publication, comprised only slightly more (29%) of the sources used in this reporting. Other media were quoted or paraphrased in 11% of the Navajo Times coverage, but unlike the reporting in the regional dailies studied, journalists writing for this tribal newspaper went to the science community for 28% of the attributed information. Business and industry sources accounted for 4% of the coverage, and members of the public (not identified as Navajo) made up the remaining 3% of people contributing to this coverage.

Conclusions and Further Research

It is difficult to say much about what the world is like when all of the data are not yet available. Such is the nature of theorizing. This analysis of a small sample of the local media directly involved with the coverage of the recent hantavirus outbreak confirms some of the criticism of media, but it is not clear what lasting impact, if any, such media coverage has on those who read or see such reporting, nor what problems result from negative reinforcement of existing stereotypes. And, indeed, an effort to balance the usual government and expert sources with attention to Navajo perspectives is evident in this study. But, as has been pointed out in reference to poor media coverage of religion, "prejudice is a minor problem compared with

apathy and ignorance." (Mattingly, 1993, p. 12).

What this study suggests is that cultural sensitivity alone may not override deeply rooted journalistic training and processes. As one reporter covering this story pointed out, "Everybody that had an Indian on the staff sent them." And although a total population of only .3% seems not to offer a large pool of Native American journalists, peak news events during this story often looked like "a convention of the Native American Journalists Association," according to one NAJA member.

Although an unexpected number of the journalists who covered this story extensively for mainstream print and electronic media were Native American, differences in coverage minority reporters brought to the coverage suggest only an initial "better understanding" and easier access to some sources. However, barriers to unbiased intercultural journalism are strong. Conroy Chino, a reporter for an Albuquerque television station and an American Indian, says he understands the criticism of how media performed in covering the hantavirus story. "There is some legitimacy to those complaints," Chino told Bob Gassaway in a story for Quill. "We came with satellite trucks, flashing cameras, and probing questions," he said. "We pounced on this story because of its impact, its intriguing quality." Navajos chased Chino away from a funeral for one victim on the reservation. In Navajo culture, not only are burial ceremonies considered private, but that person's name goes unspoken for a year after his or her death. It is safe to assume most journalists covering the story were ignorant of many Navajo traditions, customs and the privacy of spiritual rituals.

Another reporter, who is Navajo and filed numerous lengthy stories for one of the studied regional newspapers, said, "I have to put my Navajo-ness in the back seat and go on." To this

reporter's advantage, she spoke the Navajo language, and on more than one occasion was able to get to stories and Navajo sources others missed. However, she added that when the story was over, she planned to see her medicine man to conduct a traditional ceremony for restoring her harmony with the universe.

Of additional importance, although minority reporters were involved in the regional coverage, their input is hardly exclusive. At one major newspaper where a correspondent who is Navajo contributed much of the reporting on the hantavirus story, wire stories were also run, often with such leads as: "Three months after a mysterious, life-threatening malady struck around the Navajo reservation...." and ended with a death count. Headlines for wire service coverage typically read, "Hantavirus Scare Has Slowed N.M. Tourism" (Salt Lake Tribune, 1993). Interestingly, the assignment editor during this coverage at one of the studied regional newspapers is Native American and in an interview with this researcher discussed personal involvement in the story. A relative living on the Navajo reservation had actually contracted the disease.

As Hahn (1994) reminds us in The Politics of Caring, "The biases of reporters, editors, and publishers and the influence of advertisers surely have an effect, if only in subtle and not completely conscious ways" (p. 198). What Hahn fails to address is the influence on individual bias not only from the journalistic process, but inherent in journalistic norms.

The long term impact of media's initial framing of a new issue may be too deeply embedded in the public sphere for media, even when they "correct" their interpretation, to undo misperceptions. Considering the role of CDC and other public health investigators in this story, and the equally harsh criticism of their "cultural insensitivity" during this virus outbreak, future

research should include attention to the effect of sources as well as media. In a recent letter to the editor of Science, one of several responding to criticisms of the quality of U.S. Environmental Protection Agency (EPA) research, Richard Andrews (1994) writes:

> If EPA is truly to base its decisions on the best possible science, it will need not only to improve the quantity and quality of its research but also to address equally important socioeconomic factors that determine the effectiveness of its policies. A likely result will be the discovery of many risk-reduction opportunities that are less costly and more effective thanpresent policies (p. 1670).

This message may need to be heard by the CDC, and other government decision makers, especially those serving as primary sources of information for the mass media. If the content of point source information changes to better reflect a sensitivity and understanding of all cultures, it may curtail waiting for the ASNE survey data on diversity in hiring to improve, or the advent of approval for cultural journalism. But what this preliminary study also suggests is that shooting the messenger, or making assumptions about the messenger, may conjure only more stereotyping and is unlikely to resolve the environmental or cultural justice issue in the long run if the difficulty lies within the process standards and norms. Attention to training in cultural sensitivity within our own national boundaries, and more importantly, thought to insensitivities built into our media processes offer more promise in the effort to remove the existing barriers to accurate and fair coverage.

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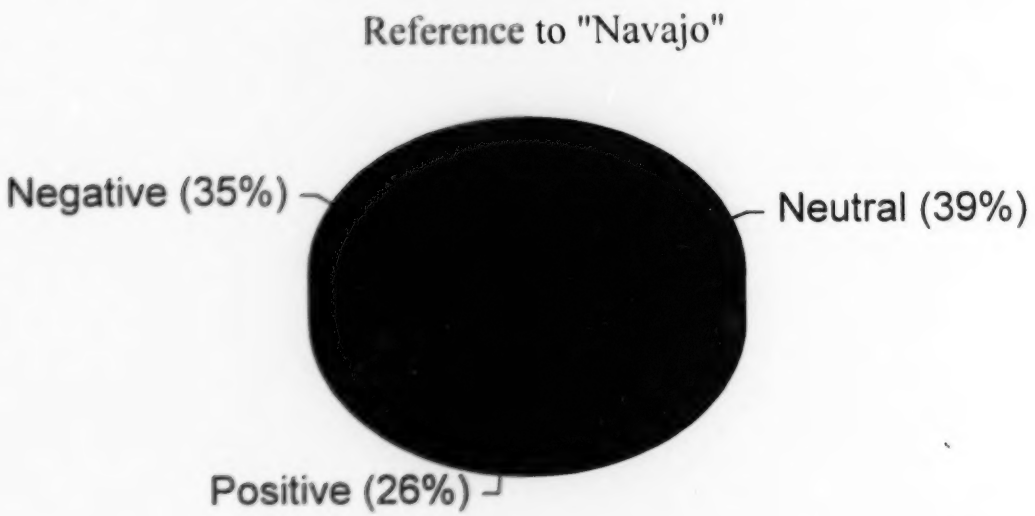
Figure 1

Origin of story

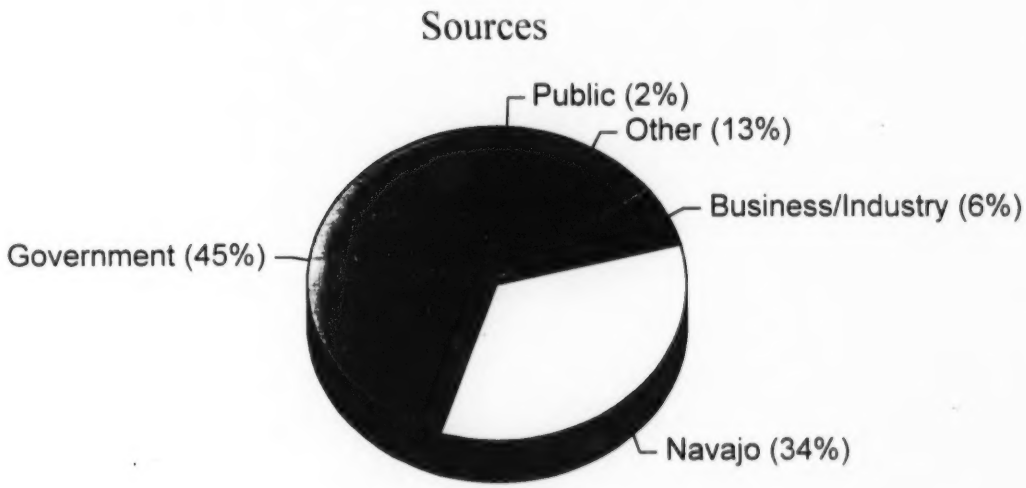
n=67

Figure 2



n=302

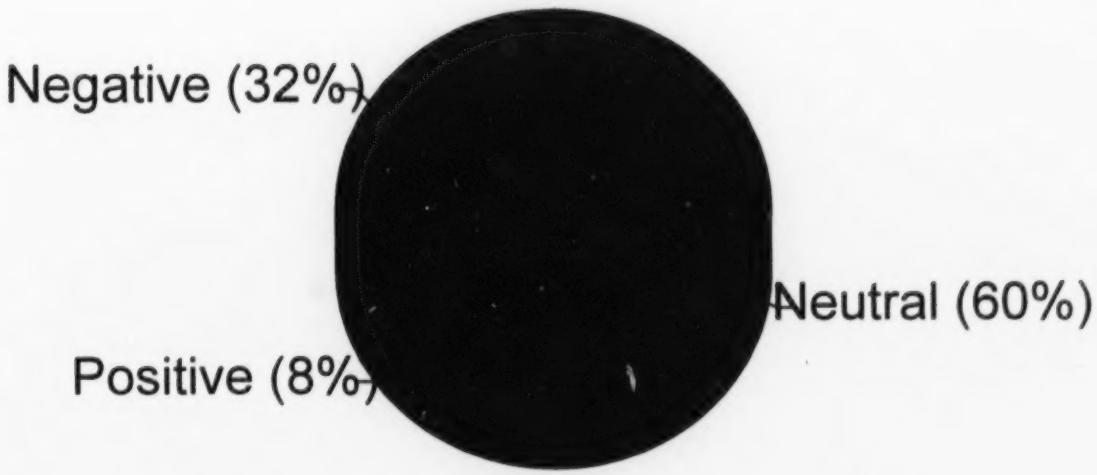
Figure 3



n=251

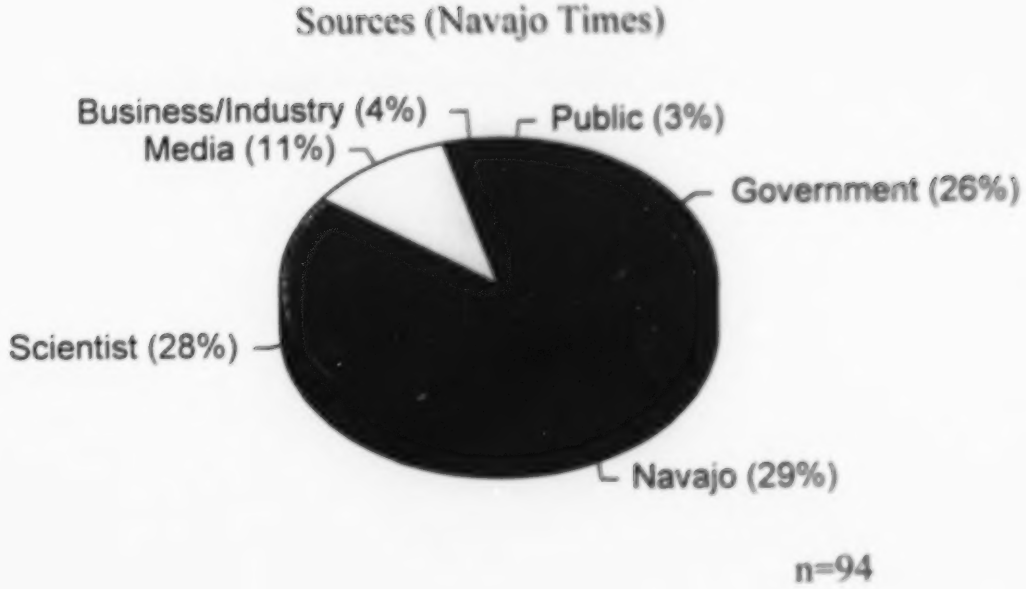
Figure 4

Reference to "Navajo" (Navajo Times)



n=100

Figure 5


Sources (Navajo Times)
Business/Industry (4%)
Public (3%)
Media (11%)
Government (26%)
Scientist (28%)
Navajo (29%)
n=94